

## REMARKS

Claims 1-15 are pending in the application. No claims have been amended. Applicants respectfully request reconsideration in light of the following remarks.

1. **Rejection of claims 1-15 under 35 U.S.C. §103(a) as obvious over Wiemann et al., U.S. Patent No. 6,093,497, hereafter "Wiemann" in view of Bergfried et al, Canadian Patent Publication No. 2,154,818 A1, hereafter "Bergfried".**

In making the rejection the PTO has asserted that it would have been obvious to one of ordinary skill in the art at the time of invention by Applicants to use the surfactant of Bergfried in the basecoat composition of Weimann to make an aqueous pigment paste as claimed. Applicants greatly appreciate the detailed basis of rejection but must respectfully disagree.

Wiemann is directed to a process for preparing a multilayer coating on a substrate surface. The process comprises applying an aqueous coating composition (ii) on a previously applied basecoat (i) to form a second basecoat (II), applying a top coat, and baking the three coats (basecoats (I) and (II) and one top coat) together (Abstract).

Wiemann goes into extensive detail regarding the composition of the aqueous coating composition which comprises an aqueous polymer dispersion comprising an acrylate polymer (x) and a non-associative thickener (y) (Wiemann, Abstract, column 2, lines 23-67, column 3, lines 1-10.) The amount of the polyacrylate (x) appears to be dependent upon the type of pigment employed, i.e., 25 -50% for organic and/or inorganic color-imparting pigments and 15-30% for special effect pigments (Wiemann, column 5, lines 6-12.) Finally, Wiemann further teaches that numerous "auxiliary binders", grinding resins, and/or crosslinking agents may also be used (Wiemann, column 3, line 46 to column 4, line 10.) It is respectfully submitted that Wiemann's use of the term "auxiliary binder" necessarily means that the acrylate polymer (x) is the "required" binder.

Bergfried is relied upon by the Examiner for its teaching of surfactant amounts.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Establishing a prima facie case of obviousness requires that all

elements of the invention be disclosed in the prior art. *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970).

The instant basis of rejection fails to meet this standard. In particular, the cited combination of Wiemann and Bergfried fails to disclose or suggest all of the required elements of the aqueous pigment paste of independent claim 1.

Applicants respectfully submit that Wiemann is directed to a basecoat composition (ii) that is substantially different from Applicants' aqueous pigment paste. Wiemann briefly teaches the use of pigments, which can be added as an aqueous slurry, or as a paste, and may be dispersed with a grinding resin (Wiemann, column 4, line 60 to column 5, line 5.) The pigments are present in "the novel coating composition", i.e. (ii), in an amount of from 5 to 25% by weight, based on solids content (Wiemann, column 4, lines 60-61.) Wiemann teaches that the solids content is the solids content of the base coat and does not explicitly or implicitly teach a range for the pigment amount in a slurry or paste (Wiemann, column 4, lines 60-66.) Wiemann's pigment paste is mixed with Wiemann's basecoat (ii). Applicants respectfully assert that Wiemann's pigment paste does not read on Applicants' paste neither before nor after mixing with basecoat (ii).

Wiemann most importantly is silent regarding the amount of the pigment within the paste, whereas claim 1 recites from 15 to 40% by weight of at least one metal pigment. Wiemann is also silent regarding thickeners in a pigment paste, whereas Applicants' claim 1 requires a particular thickener (B). Wiemann is also silent regarding organic amines in a pigment paste, whereas Applicants' claim 1 requires at least one organic amine (C). Wiemann is silent regarding the nature of the surfactant in a pigment paste, whereas Applicants' claim 1 recites that the surfactant is nonionic. Finally, Applicants' claim 1 requires that the claimed paste be free from binders and grinding resins, while Wiemann teaches the use of grinding resins as well as dispersion auxiliary binders, as well as the dispersion of the pigments in the principal binder (Wiemann, column 4, line 60 to column 5, line 5).

Thus, the disclosure of Wiemann's pigment as a component of Wiemann's novel coating (ii) does not read on the aqueous pigment paste of Applicants' claim 1. Applicants respectfully assert that Wiemann's basecoat composition (ii) (component

(A)) comprises an acrylate polymer (x), which is a binder, and a thickener (y) containing an acrylate copolymer (Wiemann, column 2, lines 23-26.) Applicants' independent claim 1, on the other hand, recites that the aqueous pigment paste is free from binders and grinding resins.

In the Office Action dated 5/3/2007, the Examiner stated

"Wiemann et al. disclose that their coating composition may utilize binders. Therefore, the use of binder is optional as explained in the grounds of rejection above"

(5/3/2007 Office Action, page 2, final paragraph.)

Applicants respectfully disagree and respectfully submit that component (x) taught by Wiemann reads on "binder", and is a required element in Wiemann's composition (ii). This is affirmed by the language "auxiliary binder" used in Wiemann, inferring that a main binder is required, namely component (x). Wiemann further refers to (x) as "the principal binder" (Wiemann, column 5, line 3.) Thus, Wiemann's component (x) is a required binder, whereas "auxiliary binder" is an optional binder in addition to the required binder, component (x).

In response to Applicants' arguments of 7/2/2007, the Examiner stated

"applicants argue that Wiemann et al. teach that compound (x) is a binder. The examiner respectfully submits that the compound is not a binder. The binder they mentioned is polyurethane resin, which is in a different basecoat composition (i)."

(7/16/2007 Advisory Action, page 2.)

While Applicants appreciate the Examiner's detailed response, Applicants must respectfully continue to disagree for at least the following reasons.

First, Applicants respectfully submit that they did not refer to the polyurethane resin of composition (i) as alleged by the Examiner. Applicants specifically discussed component (x), an acrylate binder and required component in Wiemann's basecoat composition (ii).

Second, Applicants respectfully assert that Wiemann's (x) is indeed a binder. It is generally known in the art that acrylate polymers are used as binders, and thus when an acrylate polymer is not a binder, it is described as such. See, for example, Wiemann's thickener component (y). Wiemann teaches that the thickener (y) is made of non-associative groups (Wiemann, column 3, line 13,) thus distinguishing it from the

binder. Further evidence of the binder nature of component (x) can be found at the following press release:

<http://corporate.basf.com/en/presse/mitteilungen/pm.htm?pmid=2677&id=V00-CLv7gAofpbcp2P->

attached herewith. Acronal 290 D is disclosed by Wiemann as a particularly suitable acrylate polymer (x) (Wiemann, column 2, lines 46-49.) The fourth paragraph of this press release describes Acronal 290 D as a binder that has proven its worth for many years.

Further, Applicants respectfully assert that the limitation "from 15 to 40% by weight of at least one metal pigment" is not taught nor suggested by Wiemann. Applicants respectfully submit that independent claim 1, which is directed to a pigment paste and not a basecoat composition, recites "from 15 to 40% by weight of at least one metal pigment", and "at least 50% by weight of water", "based on total weight". On the other hand, Wiemann teaches that the proportion of pigments and fillers may amount in total to from 5 to 25% by weight, based on the solids content of basecoat (ii) (Wiemann, column 4, lines 60-63.) Since Applicants' claim recites at least 50% water, and the weight percent recited for the pigment is for total weight, then based on solids content alone, the metal pigment in Applicants' paste would be present in 30% or more by weight, which is larger than and outside of the weight range of 5 to 25% by weight taught by Wiemann for a basecoat.

In response to Applicants' arguments of 7/2/2007, the Examiner stated

"The solid content" means the pigment itself amount in the basecoat composition when a pigment paste is used (see example 208, line 21)."

(7/16/2007 Advisory Action, page 2.)

Applicants respectfully disagree. "The solid content" means the entire solid content of Wiemann's basecoat (ii), 5-25% of which being Wiemann's pigments. This assertion is supported by the Examples, particularly in the fact that the Examples teach the pigment paste or dispersion is a separate component (typically (C)) which is added to form the basecoat. Furthermore, Example 2.8, which was referred to by the Examiner in the Advisory Action, discloses a dispersion C comprising a pigment, Irgazinrot DPP BO (Irgazine red DPP BO), a dispersion auxiliary, and a rheology

modifier. The pigment content is 43.2% by weight (Wiemann, column 14, lines 19-24.) Applicants respectfully assert that dispersion C does not read on Applicants' independent claim 1 neither prior to nor after mixing with B and D. Prior to mixing with B and D, dispersion C is silent regarding claim 1's thickener and amine, and also dispersion C does not comprise a metal pigment as required by independent claim 1. Irgazine red is not a metal pigment, but is an organic compound having the formula 3,6-bis(4-chlorophenyl)pyrrolo[3,4-c]pyrrole-1,4(2H,5H)-dione. After mixing with B and D, Example 2.8's composition comprises a binder, and a solids content of 29.04% of the total weight of the composition (Wiemann, column 14, line 37.) Since the pigment in dispersion C was present as 43.2% by weight of 28.79 parts by weight, then based on the total weight of the composition of Example 2.8, after mixing C with B and D the amount of the pigment is 11.9% by weight, based on the total weight of the composition of Example 2.8, which does not read on Applicants' 15-40% by weight of pigment.

Thus, Applicants respectfully assert that Wiemann does not teach all the elements of Applicants' independent claim 1, specifically, Wiemann does not teach a pigment paste that is free of binder and grinding resins, and that comprises from 15 to 40% by weight of at least one metal pigment. Bergfried is relied upon by the Examiner to teach Applicants' surfactant. Applicants respectfully assert that the combination of Bergfried with Wiemann does not compensate for Wiemann's lack of teaching or suggestion of the above. Accordingly, Applicants respectfully assert that the Examiner did not establish a prima facie case of obviousness, and that the instant claims are patentable over the combination of Wiemann and Bergfried under 35 U.S.C. §103(a). Withdrawal of the rejection is respectfully requested.

## CONCLUSION

Applicants respectfully submit that the Application and pending claims are patentable in view of the foregoing amendments and/or remarks. A Notice of Allowance is respectfully requested. As always, the Examiner is encouraged to contact the Undersigned by telephone if direct conversation would be helpful.

Respectfully Submitted,

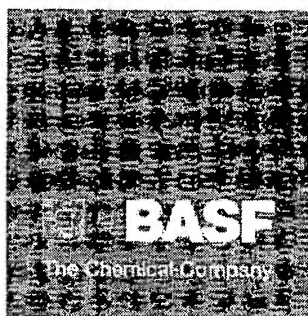
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- **Scientific presentation on new AQAGloss® binder for high-gloss coatings receives award**



BASF AG has received the European Coatings Award 2007. BASF researchers were awarded the prestigious prize for the new AQAGloss binder for high-gloss water-based coatings yesterday –

May 7, 2007 – in Nuremberg. The prize is presented every two years on the eve of the E Coatings Show (ECS), Europe's leading trade fair for paints and coatings, and goes to the scientific presentation of new product technologies.

BASF's presentation of AQAGloss at the ECS show cases an innovation in the field of water-based coatings. "AQAGloss is a brand-new dispersion-based binder for the manufacture of high-gloss water-based coatings and thus a genuine alternative to conventional solvent-based architectural coatings", explained Jan-Peter Sander, head of BASF's Adhesive and Coatings Polymers regional business unit and thus responsible for the architectural coatings business in Europe. The product's advantage? Paints based on AQAGloss can already meet the environmental standards of the future (EU Directive 2004/42/EC and emissions tests based on the guidelines of Germany's Committee for Health-Related Evaluation of Building Products (AgBB), since thanks to their environmentally friendly properties they contain only small amounts of film-forming auxiliaries. In addition, they contain no heavy metals (driers).

AQAGloss also introduces new possibilities for processing. It forms a crystal-clear, tack-free film at room temperature and is extremely easy to apply. The advantages it offers users are: it produces free, high-gloss surfaces previously associated only with solvent-based alkyd resin coatings. Whereas the flow and leveling properties of conventional acrylate coatings can barely match the performance of solvent-based systems, AQAGloss produces paint formulations whose rheological behavior meets the requirements of professionals too. "With AQAGloss, we are offering our customers a first-class product, which along with its innovative and environmentally friendly features is also easy to apply. This will enable us to further expand our leading position in sustainable, water-based dispersions for architectural coatings and to set new standards."

emphasized Dr. Frauke Richter, head of marketing for Polymers for Architectural Coating BASF.

#### **Other innovative binders in our portfolio**

Binders for coatings are classic BASF products. They ensure gloss, mechanical stability necessary adhesion of the paint to the respective surface. For large-volume applications interior paints, facade coatings or outdoor plasters, BASF's water-based polymer dispers example Acronal® S 790 or Acronal 290 D, have proven their worth for many years.

Along with AQAGloss, BASF is also exhibiting other innovative binders and coating addit Hall 4, booth 4-113, at the ECS 2007: The new generation of the nanotechnology-based binder ensures dirt resistance and color retention on facades. Its principle? During the pr of COL.9, inorganic nanoparticles are incorporated homogeneously into organic polymer particles of water-based dispersions. They then form a three-dimensional network in the coating which ensures an extremely hard and hydrophilic surface and a good balance be moisture protection and water vapor transmission.

A cost-effective and top-quality alternative to other rheological additives is the new Latek 6269 additive. Just small amounts of this so-called HASE (hydrophobic modified acrylic : emulsion) lead to a sharp increase in viscosity in dispersion paints and plasters. The res excellent coatability.

As a major supplier to the architectural coatings and the construction chemicals industry, develops, produces and markets polymer dispersions, powders and solutions based on acrylates, styrene and butadiene worldwide. They are used, for example, to manufacture plasters, finishing systems and compounds, advanced super concrete plasticizers, roof c and ceramic tile adhesives. They act as binding agents in paints and coatings. BASF's s strengths lie in its high-performance research, development and applications technology business is part of the Functional Polymers division in BASF's performance products seg Further information is available online at [www.basf.de/dispersions](http://www.basf.de/dispersions).

A press photo can be downloaded from the Internet at [www.basf.de/pressphotos](http://www.basf.de/pressphotos), keyw Functional Polymers, search term AQAGloss.

#### **BASF**

BASF is the world's leading chemical company: The Chemical Company. Its portfolio rar from chemicals, plastics, performance products, agricultural products and fine chemicals oil and natural gas. As a reliable partner to virtually all industries, BASF's high-value pro and intelligent system solutions help its customers to be more successful. BASF develop technologies and uses them to meet the challenges of the future and open up additional opportunities. It combines economic success with environmental protection and social responsibility, thus contributing to a better future. BASF has approximately 95,000 emplc and posted sales of €52.6 billion in 2006. BASF shares are traded on the stock exchange Frankfurt (BAS), London (BFA), New York (BF) and Zurich (AN). Further information on l available on the Internet at [www.basf.com](http://www.basf.com).



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